

(12) PATENT
(19) AUSTRALIAN PATENT OFFICE

(11) Application No. AU 200210213 B2
(10) Patent No. 781843

(54) Title
Gaming machine with mystery nudge symbol

(51) 6 International Patent Classification(s)
A63F 005/04 G07F 017/34
A63F 013/00

(21) Application No: 200210213 (22) Application Date: 2002.01.17

(30) Priority Data

(31) Number PR3011 (32) Date 2001.02.09 (33) Country AU

(43) Publication Date : 2002.08.15

(43) Publication Journal Date : 2002.08.15

(44) Accepted Journal Date : 2005.06.16

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(56) Related Art
US 4826169
US 6089977
US 6190254

ABSTRACT

A gaming machine 10 has a display 14 and a game controller means arranged to control images displayed on the display 14. The game controller is arranged to play a game 16 wherein at least one random event is caused to be displayed on the display 14. If a predefined winning event occurs, the machine awards a prize. The display 14
5 displays a spinning reel game 14, each reel 18 of which carries a plurality of symbols, at least one of which is a mystery symbol, the identity of which, at least initially, is hidden. When the mystery symbol appears on the display 14 in a predetermined position, it is caused, by the controller and subject to predetermined conditions, to move to a different position whereafter the identity of the mystery symbol is revealed to be another symbol
10 which is a symbol of a set of symbols of the game.



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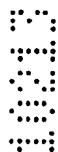


AUSTRALIA
Patents Act 1990

Aristocrat Technologies Australia Pty Ltd

ORIGINAL

**COMPLETE SPECIFICATION
STANDARD PATENT**



Invention Title:

Gaming machine with mystery nudge symbol

The following statement is a full description of this invention
including the best method of performing it known to us:-

*Gaming machine with mystery nudge symbol*Field of the Invention

This invention relates to a gaming machine. More particularly, the invention relates to a gaming machine and to an improvement to a game played on such a gaming machine.

5

Background to the Invention

Players who regularly play gaming machines quickly tire of particular games and therefore it is necessary for manufacturers of these machines to develop innovative game features which add interest to the games. In so 10 doing, it is hoped to keep players amused and therefore willing to continue playing the game as well as to attract new players.



Also, with the growth that has occurred in the gaming machine market, there is intense competition between manufacturers to supply various existing and new venues. When selecting a supplier of gaming machines, the 15 operator of a venue will often pay close attention to the popularity of various games with their patrons. Therefore, gaming machine manufacturers are keen to devise games which are popular with the players as a mechanism for improving sales, retaining customers and attracting new customers.

Summary of the Invention

According to the invention, there is provided a gaming machine having a display means and a game control means arranged to control images displayed on the display means, the game control means being arranged to play a game wherein at least one random event is caused to be displayed on 20 the display means and, if a predefined winning event occurs, the machine awards a prize, the gaming machine being characterized in that the display means displays a spinning reel game, each reel of which carries a plurality of symbols, at least one of which is a mystery symbol, the identity of which, at least initially, is hidden and further being characterized in that, when said at 25 least one mystery symbol appears on the display means in a predetermined position, it is caused, by the control means and subject to predetermined conditions, to move to a different position whereafter the identity of the mystery symbol is revealed to be another symbol which is a symbol of a set of symbols of the game.

The at least one mystery symbol may, initially, be covered by a mystery-signifying representation such as a question mark representation or a representation of a pair of binoculars. Once the at least one mystery symbol has been moved, or nudged, to said different position, the mystery-signifying representation may be removed to reveal the other symbol.

Instead, once the at least one mystery symbol has been moved, or nudged, to its final position, the at least one mystery symbol may be transformed into the other symbol. The transformation from the at least one mystery symbol to the other symbol may be effected by the at least one mystery symbol simply being replaced by the other symbol. Instead, the transformation may be by means of an animation sequence from the at least one mystery symbol to said other symbol.



Those skilled in the art will appreciate that, in a spinning reel-type game, there are paylines on which, if a prize-winning combination of symbols appears when the reels stop spinning and the payline is active, a prize is awarded. An "active" payline is one on which a player has made a wager. Each reel has a reel strip associated with it with each position on the reel strip being mapped to a predetermined position on its associated reel, at least one position on the reel strip being designated as a mystery symbol position.

The other symbol from the set of symbols of the game at the, or each, designated position may be predetermined. Instead, the at least one mystery symbol may, initially, be unidentified in the sense of not having any symbol from the set of symbols associated with it and only when the mystery symbol reaches its rest position is it converted by the control means into one of the other symbols.

The other symbol may be selected from one of (a) the entire set of symbols that is available on the reel strips and (b) a subset of the symbols. The subset of symbols is a set of special symbols such as, for example, a wild symbol, a scatter symbol, a top-paying symbol, a feature trigger symbol, or the like.

A prize may be paid for any prize-winning combination of symbols both before and after the at least one mystery symbol has been moved, or nudged, to its final position. Instead, the predetermined conditions may govern that the at least one mystery symbol moves, or is nudged, on to an active payline adjacent which the at least one mystery symbol is initially positioned only if it improves the prize applicable resulting from that

combination of symbols which includes the other symbol revealed from the at least one mystery symbol. Still further, an initial prize may be paid and a further prize may be paid after the at least one mystery symbol has been moved and the other symbol revealed only if, as result of the move, the 5 further prize is larger. Yet further, if an initial prize is payable before the at least one mystery symbol has been moved and the other symbol revealed and a further prize is payable after the at least one mystery symbol has been moved and the other symbol revealed, only the higher of the two prizes may be paid.

10 The predetermined conditions may further govern that, if the mystery symbol appears initially on an active payline of the game, no movement of the mystery symbol occurs.



Brief Description of the Drawings

15 The invention is now described by way of example with reference to the accompanying diagrammatic drawings in which:-

Figure 1 shows a three dimensional view of a gaming machine, in accordance with the invention;

20 Figure 2 shows a block diagram of a control circuit of the gaming machine;

Figure 3 shows a representation of a reel strip for a game played on the gaming machine of Figure 1;

Figures 4a to 4c show screen displays of a first embodiment of the game;

25 Figure 5 shows a flow chart of the embodiment of the game of Figure 4;

Figure 6 shows a screen display of a second embodiment of the game;

Figure 7a to 7c show screen displays of a further version of the second embodiment of the game;

Figure 8 shows a flow chart of the embodiment of Figures 6 and 7; and

30 Figure 9 shows a flow chart of yet a further embodiment of the game.

Detailed Description of the Drawings

In Figure 1, reference numeral 10 generally designates a gaming machine, including a game, in accordance with the invention. The machine 35 10 includes a console 12 having a video display unit 14 on which a game 16 is played, in use. The game 16 is a spinning reel game which simulates the

rotation of a number of spinning reels 18. A midtrim 20 of the machine 10 houses a bank 22 of buttons for enabling a player to play the game 16. The midtrim 20 also houses a credit input mechanism 24 including a coin input chute 24.1 and a bill collector 24.2.

- 5 The machine 10 includes a top box 26 on which artwork 28 is carried. The artwork 28 includes paytables, details of bonus awards, etc.

A coin tray 30 is mounted beneath the console 12 for cash payouts from the machine 10.

Referring now to Figure 2 of the drawings, a control means or control circuit 40 is illustrated. A program which implements the game and user interface is run on a processor 42 of the control circuit 40. The processor 42 forms part of a controller 44 which drives the screen of the video display unit 14 and which receives input signals from sensors 46. The sensors 46 include sensors associated with the bank 22 of buttons and touch sensors mounted in the screen. The controller 44 also receives input pulses from the mechanism 24 to determine whether or not a player has provided sufficient credit to commence playing. The mechanism 24 may, instead of the coin input chute 24.1 or the bill collector 24.2, or in addition thereto, be a credit card reader (not shown) or any other type of validation device.

20 Finally, the controller 44 drives a payout mechanism 48 which, for example, may be a coin hopper for feeding coins to the coin tray 30 to make a pay out to a player when the player wishes to redeem his or her credit.

In the game 16 played on the gaming machine 10, mystery symbols are carried on a reel strip 50, as shown in Figure 3 of the drawings. When a mystery symbol spins up on a screen display, as will be described in greater detail below, the mystery symbol will, under certain circumstances, nudge to an optimal position before revealing what symbol it is.

Initially, as shown, for example, in Figure 4a of the drawings, a mystery symbol 52 is designated, initially, by a question mark or by a symbol of a pair 30 of binoculars on a screen display 54.

The reel strips 50 are laid out such that the carding around the mystery symbol 52 is the same for at least two different occurrences of the mystery symbol 52 with different predetermined outcomes on the same reel 18. The advantage of this is that even a person who has memorised every reel stop 35 position would be unable to determine which of the standard symbols or which symbol of a predetermined subset of the standard symbols is covered

by the question mark. Accordingly, as shown in Figure 3 of the drawings, the mystery symbols are designated at positions 3, 11 and 17 on the reel strip 50. Hence, when any one of these positions is in a display position on the screen display 54 it will, initially, be represented by a mystery-signifying

- 5 representation such as the question mark.

In the embodiment of the invention shown in Figures 4a to 4c of the drawings, a mystery symbol 52 on the first reel 18 is initially spun up to the position shown in Figure 4a of the drawings. The controller 44 causes the first reel 18 to nudge so that the mystery symbol 52 now occupies a position
10 on the active payline being payline 1 of the game 16 played on the gaming machine 10. This is shown in Figure 4b of the drawings.

Once the mystery symbol 52 has been nudged into its final position, the mystery symbol 52 is "transformed" into the predetermined symbol at the relevant position on the reel strip 50 shown in Figure 3 of the drawings. In
15 the example illustrated, the "10" which was initially on payline 1 was at position 10 of the reel strip 50. Consequently, when the first reel 18 is nudged so that the mystery symbol 52 is brought on to payline 1, when the mystery symbol 52 transforms itself, it is transformed into the "wild" symbol which is at position 11 of the reel strip 50 as shown in Figure 4c of the
20 drawings. It will be appreciated that the reel strips 50 associated with each of the reels 18 could have at least one mystery symbol 52, not only the reel strip associated with the first reel 18.

Any applicable wins are then paid.

A further embodiment of the game is shown in Figures 6 and 7 of the
25 drawings. With reference to Figures 3 and 4 of the drawings, like reference numerals refer to like parts, unless otherwise specified.

In this embodiment of the invention, instead of the mystery symbol 52 transforming itself, the mystery symbol 52 is embodied as a symbol in its own right on one or more of the reel strips.

30 When the mystery symbol 52, in this embodiment, spins up, it is transformed under the action of the controller 44 into one of a bonus symbol, a wild card symbol and a scatter symbol.

In the version of this embodiment of the invention shown in Figure 6 of the drawings, the mystery symbol is spun up initially on payline 3. This is
35 not an active payline in the example illustrated, only payline 1 being active. Due to the fact that a winning combination, being 3 x K, already appears on

payline 1 and that a K symbol is arranged on payline 1 above the mystery symbol 52 on the same reel 18, no nudge of the mystery symbol 52 occurs. This is because the mystery symbol 52 is below a symbol forming part of a winning combination on payline 1. Instead, the mystery symbol 52 remains 5 where it is and the symbol is then selected by the controller 44 and revealed.

- In the version of the second embodiment illustrated in Figures 7a to 7c of the drawings, the mystery symbol 52 in this case is initially spun up on payline 3. The symbol on the active payline, payline 1, of the same reel 18 as the mystery symbol, being the symbol 7, is not part of a winning 10 combination. As a result, the fourth reel 18 is nudged under the action of the controller 44 so that the mystery symbol 52 is moved on to payline 1 as shown in Figure 7b of the drawings. Then, under the action of the controller 44, the mystery symbol 52 is transformed into one of a bonus symbol, a wild symbol and a scatter symbol. In the embodiment illustrated, the mystery 15 symbol 52 is transformed into a wild symbol as shown in Figure 7c of the drawings. Once this occurs, any applicable prizes are paid.

In so far as these prizes are concerned, there are two options as to how prizes are awarded. It is to be noted that the $3 \times K$ combination initially on payline 1 is a winning combination. Thus, a first option is that a prize is paid 20 for the $3 \times K$ before the mystery symbol 52 is nudged into position on payline 1. After the mystery symbol 52 has been nudged and transformed, if it results in an increased prize, for example, for $4 \times K$ as shown in Figure 7c of the drawings, a further prize for $4 \times K$ is paid. Instead, the second option is that only the higher prize, being for $4 \times K$, is paid once the mystery symbol 52 has 25 been nudged into position on payline 1 and transformed to reveal the wild symbol.

Referring to Figure 9 of the drawings, a flow chart of yet a further embodiment is shown. In this embodiment it is assumed that only payline 1 is active. The game in question uses six reels with the sixth reel only 30 carrying multipliers, not standard symbols. Further, the mystery symbol 52 only appears on one of the reels 18, for example, the second reel 18. The reel 18 carrying the mystery symbols carries more than one occurrence of the mystery symbol 52. However, the mystery symbols 52 are spaced on the reel strip 50 such that never more than one mystery symbol 52 is visible at any 35 one time on the display 14.

Further, each mystery symbol 52 is predetermined in the sense that when it transforms, it always transforms into the same symbol from the set of symbols or the subset thereof described above. Each mystery symbol 52 on the reel strip 50 may, however, transform into a different symbol from the set 5 of symbols or the subset thereof.

In this embodiment, if the mystery symbol 52 is initially spun up on payline 1, the mystery symbol 52 is transformed into its associated underlying symbol. If the underlying symbol forms part of, or results in, a prize winning combination, the relevant prize is awarded multiplied by 10 whatever multiplier was on payline 1 on the sixth reel. If, however, the mystery symbol 52 is initially spun up above or below payline 1, any wins for prize winning combinations on payline 1 are paid multiplied by whatever the multiplier was on payline 1 on the sixth reel. Then the mystery symbol 52 is nudged up or down under the action of the controller 44, as the case 15 may be, so that the mystery symbol is now on payline 1. Any win resulting from any new prize winning combination including the mystery symbol 52, multiplied, once again, by the multiplier, is then paid.

Accordingly, it is an advantage of the invention that a gaming machine 10 is provided having a game which will enhance player excitement and a 20 sense of anticipation due to the presence of the mystery symbol.

It will be appreciated by persons skilled in the art that numerous variations and/or modifications may be made to the invention as shown in the specific embodiments without departing from the spirit or scope of the invention as broadly described. The present embodiments are, therefore, to 25 be considered in all respects as illustrative and not restrictive.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A gaming machine having a display means and a game control means arranged to control images displayed on the display means, the game control means being arranged to play a game wherein at least one random event is caused to be displayed on the display means and, if a predefined winning event occurs, the machine awards a prize, the gaming machine being characterized in that the display means displays a spinning reel game, each reel of which carries a plurality of symbols, at least one of which is a mystery symbol, the identity of which, at least initially, is hidden and further being characterized in that, when said at least one mystery symbol appears on the display means in a predetermined position, it is caused, by the control means and subject to predetermined conditions, to move to a different position whereafter the identity of the mystery symbol is revealed to be another symbol which is a symbol of a set of symbols of the game.
- 15 2. The gaming machine of claim 1 in which the at least one mystery symbol is, initially, covered by a mystery-signifying representation.
- 20 3. The gaming machine of claim 2 in which, once the at least one mystery symbol has been moved to said different position, the mystery-signifying representation is removed to reveal the other symbol.
- 25 4. The gaming machine of claim 1 or claim 2 in which, once the at least one mystery symbol has been moved to its final position, the at least one mystery symbol is transformed into the other symbol.
- 30 5. The gaming machine of claim 4 in which the transformation from the at least one mystery symbol to the other symbol is effected by the at least one mystery symbol simply being replaced by the other symbol.
- 35 6. The gaming machine of claim 4 in which the transformation is by means of an animation sequence from the at least one mystery symbol to said other symbol.
7. The gaming machine of any one of the preceding claims in which each reel has a reel strip associated with it with each position on the reel strip

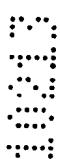
being mapped to a predetermined position on its associated reel, at least one position on the reel strip being designated as a mystery symbol position.

8. The gaming machine of claim 7 in which the other symbol at the, or
5 each, designated position is predetermined.

9. The gaming machine of claim 7 in which the at least one mystery symbol is, initially, unidentified and only when it reaches its rest position is it converted by the control means into the other symbol.

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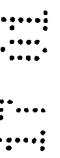
10. The gaming machine of claim 7 or claim 8 in which the other symbol is selected from one of (a) the entire set of symbols that is available on the reel strips and (b) a subset of the symbols.



15 11. The gaming machine of claim 10 in which the subset of symbols is a set of special symbols.



12. The gaming machine of any one of the preceding claims in which a prize is paid for any prize-winning combination of symbols both before and
20 after the at least one mystery symbol has been moved to its final position.



13. The gaming machine of any one of claims 1 to 11 in which the predetermined conditions govern that the at least one mystery symbol moves on to an active payline adjacent which the at least one mystery symbol is initially positioned only if it improves the prize applicable resulting from that combination of symbols which includes the other symbol revealed from the at least one mystery symbol.

14. The gaming machine of any one of claims 1 to 11 in which an initial
30 prize is paid and a further prize is paid after the at least one mystery symbol has been moved and the other symbol revealed only if, as result of the move, the further prize is larger.

15. The gaming machine of any of claims 1 to 11 in which, if an initial
35 prize is payable before the at least one mystery symbol has been moved and the other symbol revealed and a further prize is payable after the at least one

mystery symbol has been moved and the other symbol revealed, only the higher of the two prizes is paid.

16. The gaming machine of any one of the preceding claims in which the
5 predetermined conditions govern that, if the mystery symbol appears initially
on an active payline of the game, no movement of the mystery symbol occurs.

17. A gaming machine as claimed in claim 1 and substantially as described
herein with reference to the accompanying drawings.

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Dated this seventeenth day of January 2002

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Ltd
Patent Attorneys for the Applicant:

F B RICE & CO

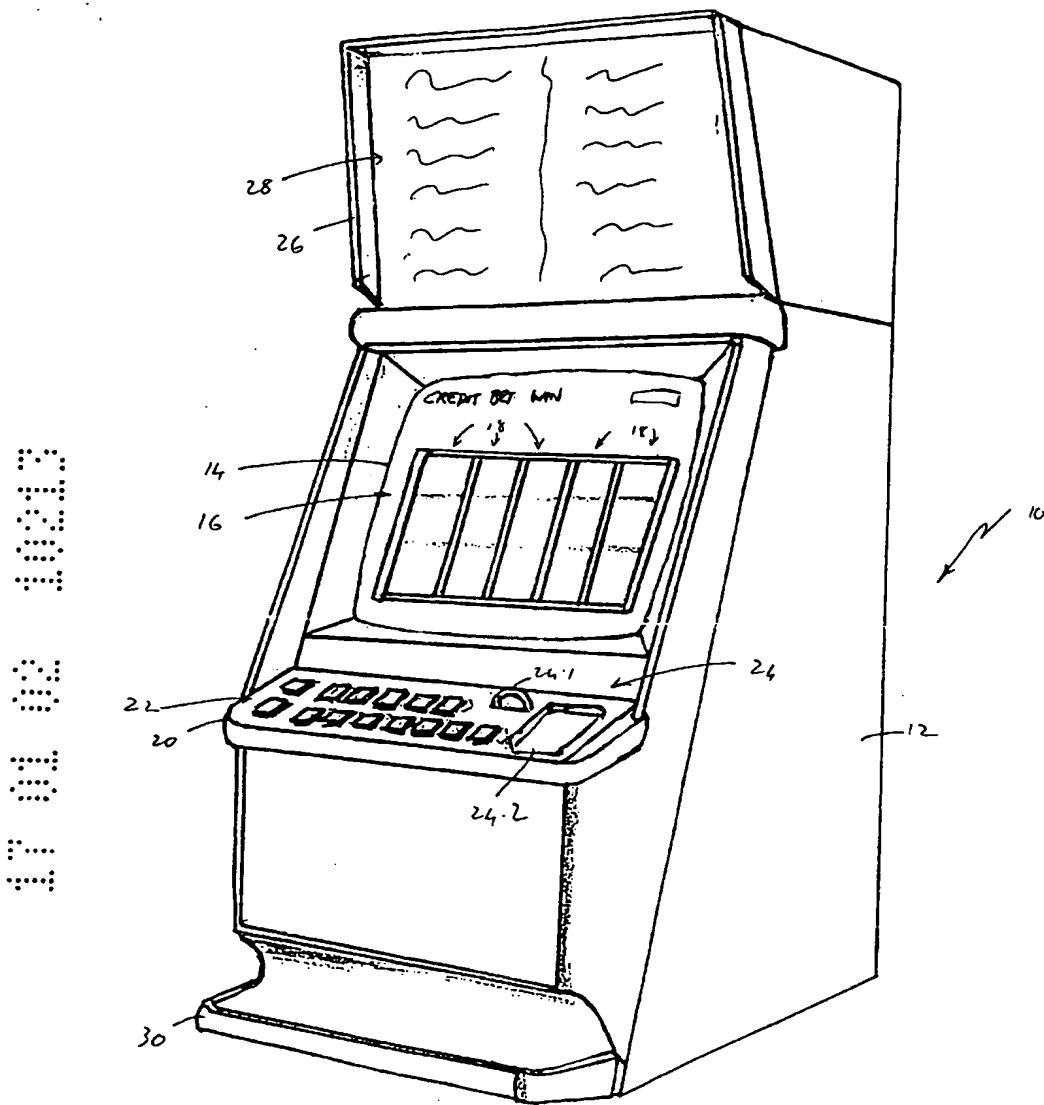


FIG-1

2003
2002
2001
2000

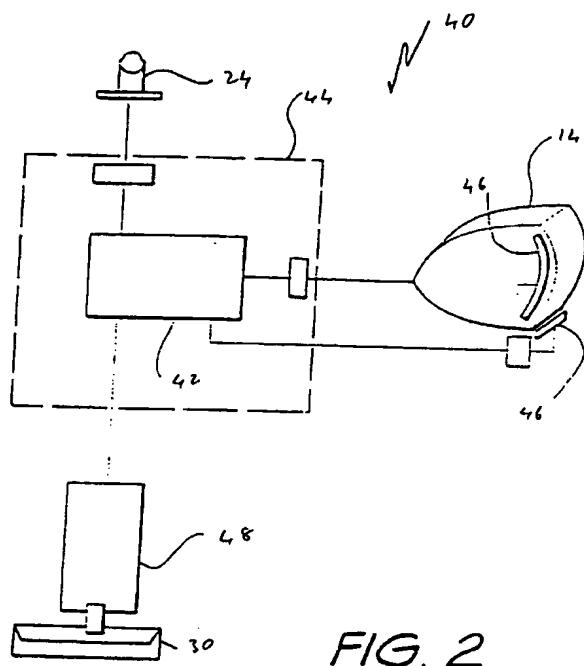


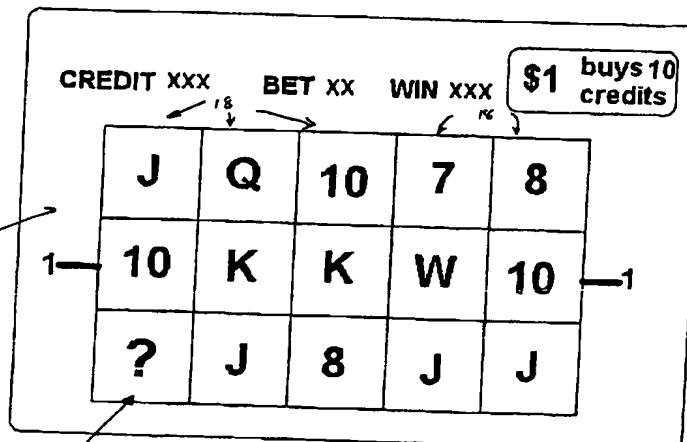
FIG. 2

Pos	Reel 1
1	JACK
2	TEN
3	KING
4	QUEEN
5	NINE
6	KING
7	SCATTER
8	NINE
9	JACK
10	TEN
11	WILD
12	QUEEN
13	NINE
14	KING
15	JACK
16	TEN
17	SYMBA
18	QUEEN
19	NINE
20	SYMBB

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FIG. 3

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52

FIG. 4a

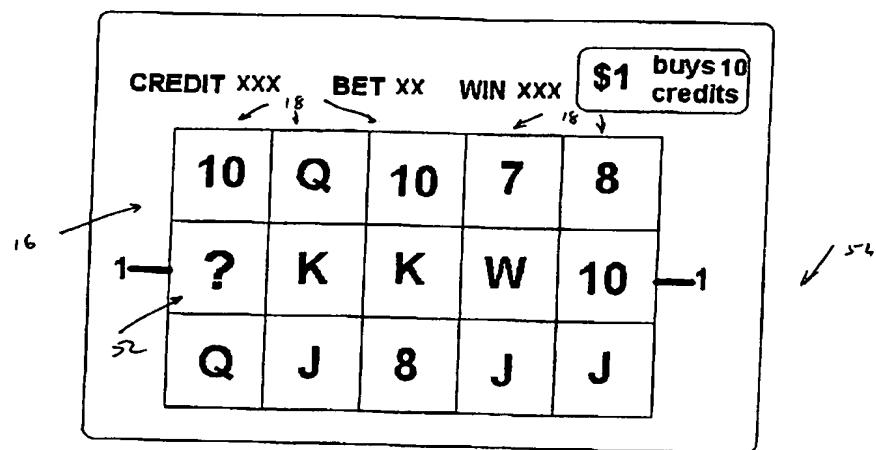


FIG. 4b

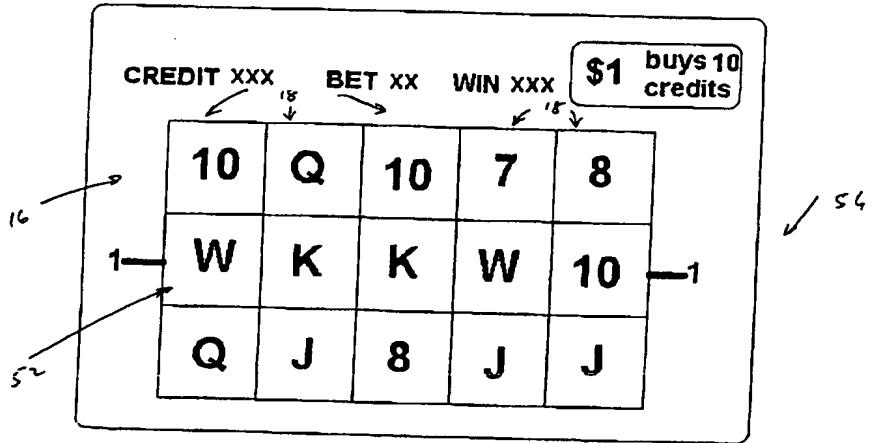


FIG. 4c

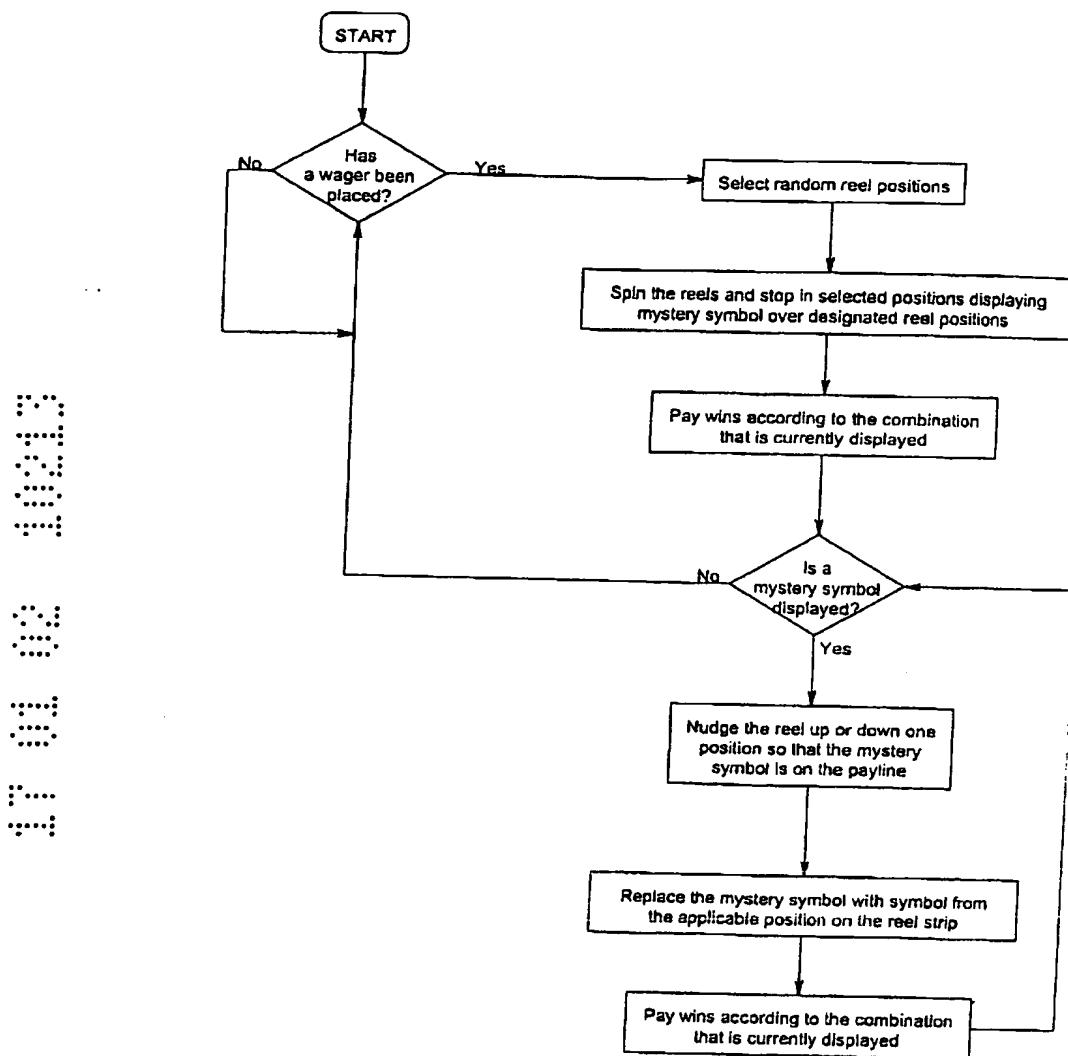
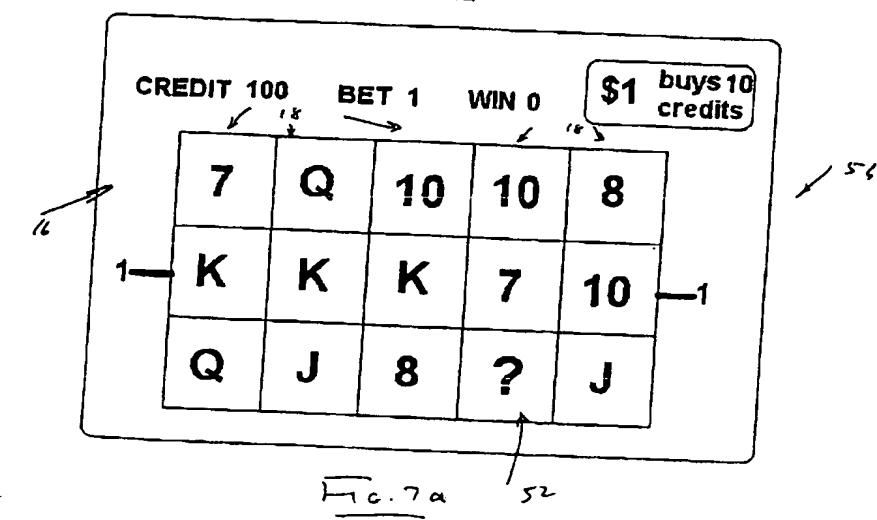
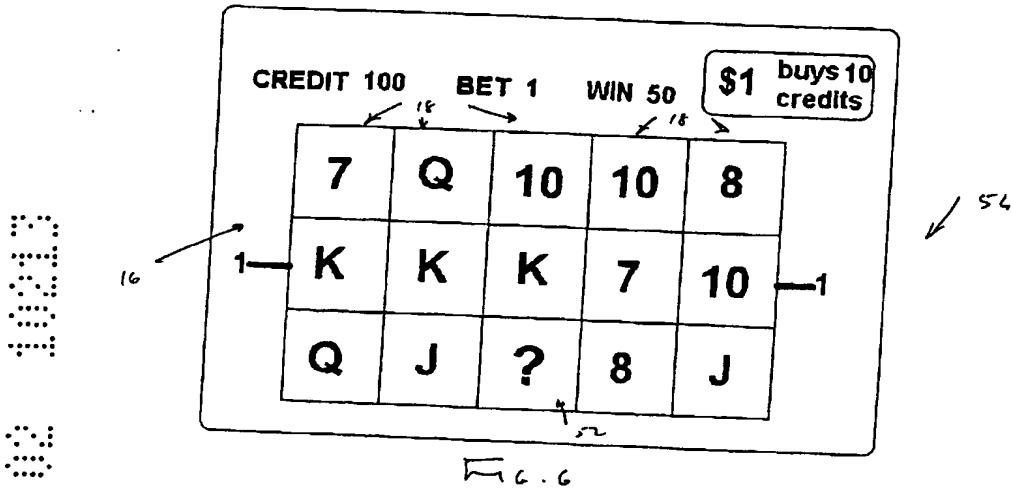


Fig. 5



CREDIT 100 BET 1 WIN 0 \$1 buys 10 credits

7	Q	10	7	8
K	K	K	?	10
Q	J	8	J	J

Fig. 7b

CREDIT 200 BET 1 WIN 100 \$1 buys 10 credits

7	Q	10	7	8
K	K	K	W	10
Q	J	8	J	J

Fig. 7c

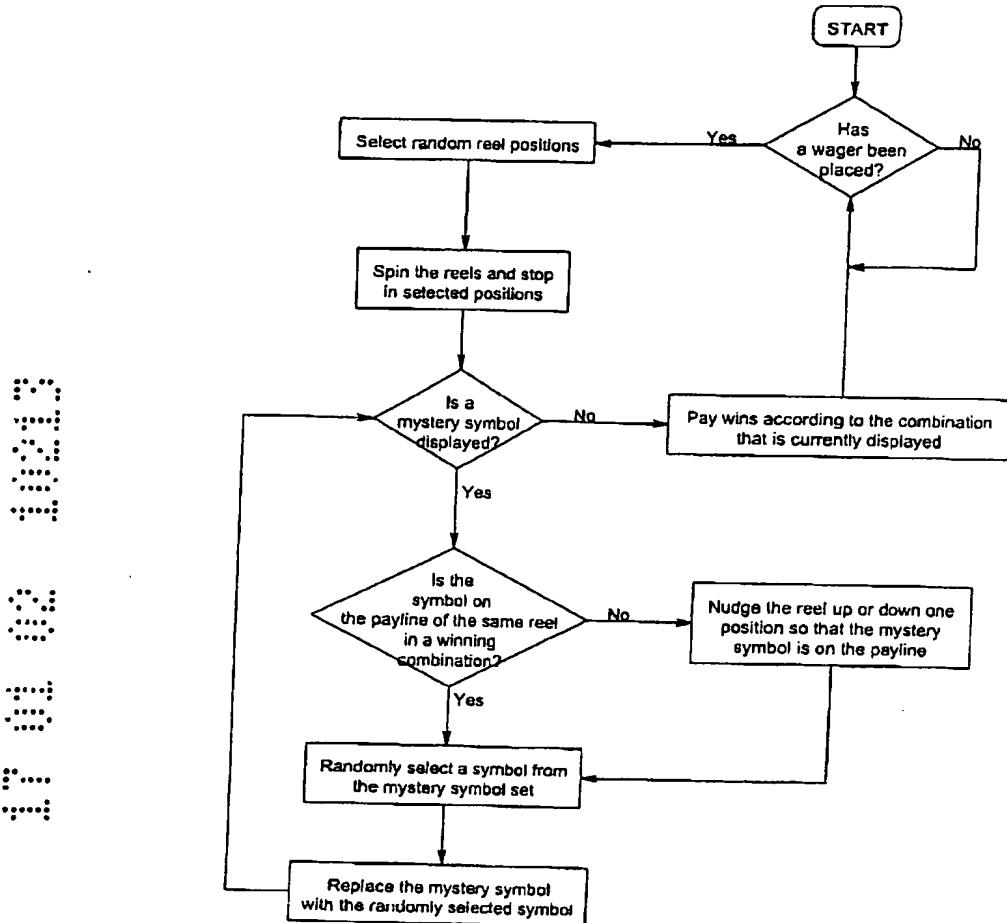


FIG. 8